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## ABSTRACT

This report presents an evaluation of a Title I preschool program which served 403 children during the 1973-74 school year, and was designed to prepare disadvantaged 4-year-olds for entry into kindergarten. In terms of instructional approach, the program closely followed Piagetian theory and included preservice and inservice teacher training. The program was evaluated in terms of 26 product and 26 process objectives, covering the affective, cognitive and psychomotor domains. The procedures for process evaluation employed the locally developed Classroom Activity Checklist as the primary instrument. Four locally constructed instruments were used in the product evaluation. In addition, parent participation records were kept by the classroom teachers. Process data indicated that the program was implemented as planned, and product data showed that the pupils mastered 25 of the 26 product objectives. Data tables and appendices make up approximately one-half the document. (SDW)

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# EVALUATION REPORT

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DEPARTMENT OF EVALUATION SERVICES

- PROVIDING ASSESSMENT, PROGRAM EVALUATION AND RESEARCH SERVICES -

*Saginaw Public Schools  
Saginaw, Michigan*

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PRE-SCHOOL PROGRAM  
E.S.E.A. TITLE I  
1973-74 School Year

An Approved Report of  
THE DEPARTMENT OF EVALUATION SERVICES

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July, 1974

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Many people in the School District of the City of Saginaw contributed to the success of this pre-school program and its evaluation.

Special thanks are due Reva Ruby, project director, and her staff for their cooperation in generating and utilizing evaluation information, as well as conducting an exemplary pre-school program.

This evaluation report is the product of the combined efforts of the Department of Evaluation Services staff. Directly involved in conducting this evaluation were Thelma Bailey, Richard Claus, Zoetta Davis, and Michael Manley. During the year, these people spent many hours developing instruments, conducting classroom observations, tabulating data and writing and editing this report.

Also, thanks are due Carolyn Pruitt, Sue Fabbro, and Janie Moore for their expert secretarial and clerical assistance.

Jerry R. Baker  
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### Background Information and Program Description

Saginaw's Title I Pre-School Program, which served 403 youngsters during the 1973-74 school year, was designed to prepare disadvantaged four-year olds for entry into kindergarten. The program operated in eleven Title I elementary schools: Baillie, Coulter, Emerson, Heavenrich, Houghton, Jones, Longstreet, Morley, Potter, Rouse, and Salina.

In terms of its instructional approach, the Pre-School Program closely followed Piagetian theory. It was success-oriented; children did not fail because no direct value judgments were made by the teachers in responding to a child's performance. They were developmentally prepared for each new task. The program's objectives and activities encompassed all important aspects of development--cognitive, psychomotor, and affective--as did the assessment of the program's impact.

Curriculum and instruction were coordinated by the supervisor of pre-school, who had a staff of eleven classroom teachers and eleven teacher assistants. Each school held two three-hour sessions a day--one in the morning and one in the afternoon.

### Inservice

Inservice education was an important part of the program. Although no formal provision was made for inservice in the program proposal, and therefore carried with it no evaluation

requirement, it was extensive and deserves in the opinion of this evaluator, more than cursory mention. Listed below are the pre-school inservice activities undertaken during 1973-74.

- August 27 -- manipulative materials for pre-school.
- August 28-29 -- a group session, headed by the project supervisor, to enable staff members to (1) review performance objectives and (2) plan for methods, materials, and classroom management systems to help students achieve objectives.
- September 4-10 -- five days of morning and afternoon sessions for pre-school staffs that focused on (1) perceptual development; (2) application and preparation of materials kit; (3) public health and record keeping; (4) evaluation of cognitive objectives; (5) dairy council workshop on nutrition and class activities; (6) puppetry and children's literature; (7) objectives and assessment in the affective and psychomotor domains.
- October 24 -- workshop for early childhood educators at Saginaw Intermediate Office. Saginaw pre-school teachers attended. Agenda included a panel discussion on "Testing for Effective Early Childhood Instruction."
- October 22 and 29 -- inservice on the refinement and administration of the Saginaw Objective Referenced Tests (SORT) for pre-schoolers, conducted by Department of Testing and Evaluation personnel and the project supervisor. Two one-hour sessions.
- December 3 -- a morning-long session for all pre-school teachers and aides which included: sharing new classroom ideas; planning for RAIDS; refocusing on objectives.
- January 18 -- a video tape presentation on seriation, shown to both pre-school teachers and aides. The locally produced video-taped presentation, developed by the project supervisor, deserves special mention since it is the first such concentrated effort to improve classroom instruction through the use of this medium in the school district. This was the first in a series of video tape presentations on a variety of pre-school topics.

- January 31 -- inservice for principals who have pre-school programs in their buildings. Also in attendance were an evaluator, the director of inservice training, the project supervisor and the assistant superintendent for compensatory education. The agenda included a discussion of pre-school objectives, parental involvement, and administrative involvement. Time was devoted to solving any problems that had arisen in the various centers.
- February 15 -- a meeting with project director and evaluation personnel to discuss process objectives and overall project evaluation.
- May 13 -- a 2½ hour session on staff creativity and sharing. Title I inventory, evaluation and planning, and staff concerns.
- June 3 -- pre-school staff discussed pre-school theory and learning and reacted to SORT and PSMAT instruments. Also, two more video-tape presentations on classification and cooking in pre-school were presented. In all, three video-tapes on teaching techniques were presented during the year with several more in the works for next year.
- June 4 -- a three-hour session in which evaluators presented pre-school staff with feedback regarding test results in terms of mastery of objectives and pre-post test gains. At this time, pre-school teachers offered their critique of the pre-school test instruments and helped refine standards and objectives.
- June 5 -- this session concerned review of the past year and recommendations for program improvement for 1974-75; what strategies worked, etc.

#### Dissemination

Information about the Pre-School Program was widely disseminated during the year primarily through the use of a slide presentation. Like inservice, there was no evaluation requirement for dissemination. It is discussed here, however,

because it is another indication of the program's thoroughness. The list below presents the dissemination activities over the year and indicates the broad spectrum of audiences that were exposed to the Saginaw program.

Title I Pre-School Slide Presentation Data

| <u>Date</u>  | <u>Group</u>                                                   | <u>Audience</u> |
|--------------|----------------------------------------------------------------|-----------------|
| July, 1973   | Central Michigan University<br>(eleven classes)                | 280             |
| September 13 | Parents As Partners (Jessie Rouse<br>Elementary School)        | 38              |
| September 28 | Parents As Partners (Salina<br>Elementary School)              | 18              |
| October 3    | Early Childhood Development Class                              | 30              |
| October 15   | Class of Student Teachers                                      | 30              |
| October 17   | Parents As Partners (Longfellow<br>Elementary School)          | 20              |
| October 23   | American Association of University<br>Women                    | 25              |
| October 24   | Saginaw Intermediate Office,<br>Kindergarten Inservice Program | 30              |
| October 25   | Michigan Dairy Council, Detroit                                | 25              |
| November 1   | Parents As Partners (Potter<br>Elementary School)              | 4               |
| November 29  | Compensatory Parent Advisory Council                           | 30              |
| December     | Lansing Catholic Schools                                       | --              |
| December     | Michigan State University                                      | --              |
| February 27  | Coulter Elementary School P.T.A.                               | 30              |

## Slide Presentations (continued)

| <u>Date</u> | <u>Group</u>                                       | <u>Audience</u> |
|-------------|----------------------------------------------------|-----------------|
| February 25 | Parents As Partners (Heavenrich Elementary School) | 15              |
| March 7     | Saginaw City P.T.A. Council                        | 18              |
| March       | Saginaw Valley College                             | 18              |
| April 24    | University of Michigan                             | 20              |
| May 22      | Central Michigan University                        | <u>28</u>       |
|             | TOTAL                                              | 649             |

In addition to the slide tape presentations, seven Saginaw pre-school teachers presented demonstration classes with their children in the new downtown Saginaw Mall on April 3-5 and 8-11 as part of the "Week of the Young Child" activities. Presentations were also made by pre-school personnel at the Michigan Reading Council Convention, April 1-2 ("Pre-School in Action") and the Michigan Association for Childhood Education on May 3-4 ("Tests That Kids Line Up For"). Also, on February 19, the pre-school supervisor spoke on parental involvement in pre-school at a Department of Social Services luncheon.

Objectives

There were 26 product objectives and 26 process objectives each for pre-school teachers and the Title I supervisor. They covered affective, cognitive, and psychomotor aspects of the

program. Listed below are both the product and process objectives. (Example: 1 = product objective; 1a = process objective for teachers).

1. Learners will demonstrate development of value preferences, such as seeking out the teacher and teacher assistant as sources of information.
- 1a. Pre-school teacher and adult assistant(s) will implement behavior modification techniques and interest centers.
2. Learners will display positive responses to expected standards of behavior.
- 2a. Same as 1a.
3. Learners will display positive interaction with peers.
- 3a. Same as 1a.
4. Learners will show positive attitudes toward initiating activities.
- 4a. Same as 1a.
5. Learners will show positive attitude toward persistence with an activity.
- 5a. Same as 1a.
6. Learners will show curiosity--experimenting, exploring, and seeking new knowledge rather than waiting for teacher direction.
- 6a. Same as 1a.
7. Learners will show an increase in attacking problems in many ways, characterized by creativity.
- 7a. Same as 1a.
8. Learners will successfully perform physical activities involving large movements of the body.
- 8a. Teacher and assistant will teach physical education.
9. Learners will successfully perform activities involving hand/eye coordination.
- 9a. Teacher and assistant will teach hand/eye coordination.

10. Learners through experimentation will demonstrate properties of and display appropriate behavior for exploring properties of objects.
- 10a. Teacher and assistant will teach properties of objects.
11. Learners will evidence knowledge of school rules.
- 11a. Teacher and assistant will teach rules of behavior.
12. Learners will display knowledge involving social learnings of role identities--firemen, doctors, etc.
- 12a. Teachers and assistant will teach general social knowledge.
13. Learners will group an array of objects together by a common criterion (color, size, shape).
- 13a. Teacher and assistant will teach grouping.
14. Learners will identify objects according to a given dimension among transitive relationships.
- 14a. Teachers and assistant will teach transitional relations.
15. Learners will display knowledge in conservation of numbers by one-to-one comparison.
- 15a. Teacher and assistant will teach conservation of number of one-to-one comparison.
16. Learners will develop concepts of topological space (in-out, over-under, etc.)
- 16a. Teacher and assistant will teach concepts of topological space.
17. Learners will develop concepts of linear order among topological relationships.
- 17a. Teacher and assistant will teach concepts of linear order.
18. Learners will participate in activities designed to understand the parts of a whole concept (puzzles, paper cuttings, etc.).
- 18a. Teacher and assistant will demonstrate parts of a whole object.

- 19. Learners will participate in activities related to copying specific shapes (line drawings, painting, etc.).
- 19a. Teacher and assistant will demonstrate copying specific shapes.
- 20. Learners will be able to perform activities involving temporal ordering of events (story telling, science experiments, etc.).
- 20a. Teacher and assistant will teach temporal ordering of events.
- 21. Learners will be able to imitate objects with their bodies.
- 21a. Teacher and assistant will demonstrate the use of body to represent objects.
- 22. Learners will be able to use objects to represent other objects (props).
- 22a. Teacher and assistant will present ideas for use of objects to represent other objects.
- 23. Learners will identify and use sounds to represent objects.
- 23a. Teacher and assistant will demonstrate "human" utterances that represent an object.
- 24. Learners will, by imitation, be able to participate in activities using three-dimensional models to represent objects.
- 24a. Teacher and assistant will present ideas for use of three-dimensional models to represent objects.
- 25. Learners will evidence knowledge of two-dimensional representation of objects in drawings.
- 25a. Teacher and assistant, by teaching, observing, and discussing, will help learners represent two-dimensional objects in drawings.
- 26. Parents will participate in at least one of these two school-sponsored activities: 1) classroom participation, 2) attend parent meeting.
- 26a. Teachers will maintain a parent participation checklist.

### Procedures for Evaluation

Two separate types of evaluation--process and product--were required for the pre-school program. Each is discussed below.

Procedures for Process Evaluation. A primary instrument used to assess all 26 process objectives was the locally developed Classroom Activity Observation Checklist (see Appendix A). A key relating the various classroom activities to program objectives was developed to aid evaluators in categorizing the activities they observed. During December, two evaluators visited four pre-school classrooms, selected at random, for a period of one-and-a-half hours each to observe the types of activities being provided for the students. The activities observed were recorded and compared to the criterion measures specified in the process objectives.

To corroborate this data, additional information was collected from the program supervisor during periodic meetings with evaluators. The supervisor, according to the program proposal, was to keep a log of all on-site classroom visitations. This log along with other information, provided corroborative data needed to determine if program personnel were working toward the attainment of stated objectives and emphasizing the activities outlined for the program.

Procedures for Product Evaluation. Four locally constructed instruments were used to evaluate the cognitive, affective, and psychomotor aspects of the pre-school program.

The Affective Rating Scale (A.R.S.), the Pre-School Checklist (P.S.C.L.), the Pre-School Manipulative Abilities Test (P.S.M.A.T.), and the Saginaw Objective Referenced Tests: Pre-School (S.O.R.T.) were used to determine the attainment of objectives. In addition, parent participation sheets were used to assess the frequency and type of parent involvement in the program. These instruments appear in Appendices B-E respectively.

The following chart shows the instrument, objectives measured, domain, and evaluation design to provide a clearer picture of how these instruments meshed with the evaluation scheme. For each of the first four instruments, the entire pre-school population (403) was tested.

| <u>Instrument</u> | <u>Objectives Measured</u> | <u>Domain Measured</u> | <u>Design</u> |
|-------------------|----------------------------|------------------------|---------------|
| A.R.S.            | 1-7                        | Affective              | Pre-Post      |
| P.S.C.L.          | 8, 11, 21-24               | Psychomotor            | Pre-Post      |
| P.S.M.A.T.        | 9, 17, 19, 25              | Psychomotor            | Pre-Post      |
| S.O.R.T.          | 10, 12-16, 18, 20          | Cognitive              | Pre-Post      |
| Parent Sheets     | 26                         | Parent Participation   | Ongoing       |

After the various instruments were administered, the product data were analyzed to determine the mastery level for each objective as specified in the program's criteria for success. Pre-test data were used primarily as baseline information for pre-school personnel. The only exception was the data generated from the Affective Rating Scale which dealt with

changes in attitudes and values over the course of the school year. The parent sheets, used to determine the amount of parent involvement in pre-school, were collected at or near the end of each semester.

Pre-data were useful in several ways: determining entry skills (diagnostic), assessing the actual growth during the year, and in evaluating the program's actual impact. For example, the pupils as a group might have failed to meet a particular pre-determined performance standard but the rate of improvement over the year might have been substantial nevertheless. By taking into account the amount of growth, a more precise evaluation is possible. Also, in light of the data, objectives that were either too easy or too difficult could be subsequently adjusted.

#### Presentation and Analysis of Data

Process Data. As mentioned earlier, two evaluators spent a total of eight and one half hours observing four separate classrooms on December 4 and 6, 1973. The primary evaluation tool was the Classroom Activity Observation Checklist, which listed the activities for each of the objectives. The evaluators checked to determine whether the various learning opportunities specified in the program were being provided.

The chart below provides a summary of the process evaluation observations. A check (x) indicates that the activity was observed during the on-site visitation. However, the reader should be advised against drawing definitive conclusions

from these findings since only one class period was observed in each school. Activities without a check might well have been undertaken at a different time and still had proper emphasis; not all activities were specified to take place every day. With that in mind, here are the findings.

DATA GATHERED FROM PRE-SCHOOL  
CLASSROOM ACTIVITY OBSERVATION CHECKLIST  
DURING ON-SITE VISITATIONS

| Process Objective | Type of Activity                                      | SCHOOLS |   |   |   |
|-------------------|-------------------------------------------------------|---------|---|---|---|
|                   |                                                       | A       | B | C | D |
| 1-7a              | Behavior Modification                                 | x       | x | x | x |
| 1-7a              | Interest Centers                                      | x       | x | x | x |
| 8a                | Gross Motor Coordination                              | x       | x | x | x |
| 9a                | Eye-Hand Coordination                                 | x       | x | x | x |
| 10a               | Properties of Objects                                 | x       | x | x | x |
| 11a               | Rules of Behavior                                     | x       | x | x | x |
| 12a               | Social Knowledge                                      |         |   |   | x |
| 13a               | Grouping and Regrouping (2nd semester)                | x       |   |   | x |
| 14a               | Transitive Relations                                  | x       |   | x | x |
| 15a               | Conservation of Numbers                               | x       | x | x | x |
| 16a               | Topological Space                                     | x       | x | x | x |
| 17a               | Linear Order                                          | x       | x | x | x |
| 18a               | Parts of a Whole                                      | x       |   | x | x |
| 19a               | Copying Specific Shapes                               | x       | x | x | x |
| 20a               | Temporal Ordering of Events                           |         |   | x | x |
| 21a               | Use of Body to Represent an Object                    | x       |   | x |   |
| 22a               | Use of Objects to Represent Other Objects             |         | x | x |   |
| 23a               | Human Utterance Which Represent Objects               | x       |   |   | x |
| 24a               | Use of Three-Dimensional Model to Represent Object    | x       |   | x | x |
| 25a               | Two-Dimensional Representation of Objects in Drawings | x       | x | x | x |
| 26a               | Record of Parental Participation Being Maintained     | x       | x | x | x |

The following are examples of some of the classroom activities observed by evaluators during their on-site visitations. Each description is coded to its process objective number.

- Behavior Modification (1-7a): positive reinforcement; one-to-one relationships; praise; consistent classroom environment; continuing with a task.
- Interest Centers (1-7a): storybook table; game areas; display of safety symbols, etc.
- Gross Motor Coordination (8a): free play; use of gym ladder, skipping; running exercise record.
- Eye-Hand Coordination (9a): puzzles; pasting; clean-up; tying shoes; cutting; pouring.
- Transitive Relations (14a): seriation; discussing length of chains; describing objects in terms of size.
- Parts of a Whole (18a): measuring for cookies; cutting paper; puzzles; using recipes.
- Use of Three-Dimensional Model to Represent Object (24a): blocks as cars; triangles cut from plastic as Christmas trees; making objects from clay.

Other process objectives were evaluated according to program guidelines. In addition to classroom activities, teachers kept a record of parental participation as called for in the program design (process objective 26a). The contents were recorded each month on a standardized checklist and broken down according to these categories: 1) participation in the classroom (sends material, visits classroom or attends field trips, communication by phone, letter or in person); and, 2) attendance at parent meetings (parent-teacher conference, home visitations, P.T.A., etc.). The supervisor met with each teacher and collected the parent data in keeping with the intent of the proposal.

Also, the various measurement instruments--Affective Rating Scale, Manipulative Abilities Test, Pre-School Checklist and the S.O.R.T. Pre-School--were administered as called for in the proposal.

Responsibility for monitoring the overall Pre-School Program at the eleven centers belonged to the project supervisor. To satisfy the process requirement, a travel schedule was submitted by the supervisor in February which listed the number of visits made to each school from September to January. In all, 147 separate visits were made during that period. This indicated that the supervisor was actively involved in monitoring the program at each school.

#### Process Conclusions

In summary, the process data indicated that the Pre-School Program was being implemented as planned. Teachers, aides, and the project supervisor were all performing the activities specified in the proposal.

#### Product Data

In terms of meeting its product objectives, the Pre-School Program could be viewed as nothing less than an unqualified success. The pupils attained 25 of the project's 26 objectives and in most cases there were major gains from pre- to post-testing. Even objective number 20, temporal ordering of three of four events, which was not attained, showed an increase of 50.1% (2.8% to 52.9%) from pre- to post-test.

Product evaluation results are presented in the following pages according to the data collection instrument.

Affective Rating Scale Data. The Affective Rating Scale (ARS) was used to measure the attainment of seven product objectives relating to pupil attitudes and values. An analysis of the data was conducted and the results are illustrated in Table 1 below.

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TABLE 1. ATTAINMENT OF OBJECTIVES, \* PRE- TO POST-, BASED ON MEAN RATINGS BY TEACHERS FOR 402 PRE-SCHOOL PUPILS IN THE FALL, 1973 AND 363 PUPILS IN THE SPRING, 1974, AS DETERMINED BY AN ANALYSIS OF AFFECTIVE RATING SCALE DATA.

| # | Objective Description     | A.R.S. Items | M E A N S |          |     |         |      | Attainment of Objective |
|---|---------------------------|--------------|-----------|----------|-----|---------|------|-------------------------|
|   |                           |              | VF 1      | F 2      | S 3 | I 4     | VI 5 |                         |
| 1 | Preference Value Teacher  | 5, 6, 10     | Post 1.3  |          |     | Pre 4.0 |      | Yes                     |
| 2 | Self-Control              | 13, 14       | Post 1.4  |          |     | Pre 3.9 |      | Yes                     |
| 3 | Positive Peer Interaction | 1, 3, 11     | Post 1.3  |          |     | Pre 4.1 |      | Yes                     |
| 4 | Initiates Activities      | 15, 17       |           | Post 1.7 |     | Pre 4.3 |      | Yes                     |
| 5 | Positive Work Attitude    | 7, 12        | Post 1.3  |          |     | Pre 4.2 |      | Yes                     |
| 6 | Curiosity                 | 2, 4, 8, 9   | Post 1.4  |          |     | Pre 4.1 |      | Yes                     |
| 7 | Creativity                | 16, 18       |           | Post 1.7 |     | Pre 4.4 |      | Yes                     |

\*Performance Standard -- pre- to post-test increases will average 20% or more on relevant A.R.S. items (i.e., a change of at least one (1) scale point on the instrument in a positive direction).

Pre- Grand Mean = 4.1  
 Post-Grand Mean = 1.4  
 Difference = 2.7 or 47%

All seven affective objectives were attained well in excess of the performance standard. In fact, the standard specified that pre- to post- increases on the 18-item scale would average 20% or more in a positive direction (or at least one point on the scale) and the year end results showed an increase of well over 40% or 2.7 scale points. The pre-test mean rating was 4.1, or "Infrequently" while the post-test mean was 1.4, or between "Frequently" and "Very Frequently."

Pre-School Checklist Data. The Pre-School Checklist (PSCL) was used to measure the attainment of six objectives related primarily to physical and language development. The results appear in Table 2 below.

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TABLE 2. NUMBER AND PERCENT OF THE 381 PRE-SCHOOL PUPILS MEETING PERFORMANCE STANDARDS FOR EACH OBJECTIVE AS DETERMINED BY TEACHER RATINGS ON THE PRE-SCHOOL CHECKLIST COMPLETED IN MAY, 1974, TOGETHER WITH A DETERMINATION OF THE ATTAINMENT OF EACH OBJECTIVE.

| Performance Objectives by Number | Behavioral Descriptor                                                         | No. and % of Pupils Mastering Each Objective |       | Attainment of Objective |
|----------------------------------|-------------------------------------------------------------------------------|----------------------------------------------|-------|-------------------------|
|                                  |                                                                               | #                                            | %     |                         |
| 8*                               | Muscular coordination involving large movements of major parts of body.       | 374                                          | 98.1% | Yes                     |
| 11**                             | Application involving knowledge of rules that apply to learners.              | 370                                          | 97.1% | Yes                     |
| 21***                            | Imitation involving the use of the body to represent objects.                 | 356                                          | 93.4% | Yes                     |
| 22***                            | Imitation involving the use of objects to represent other objects.            | 348                                          | 91.3% | Yes                     |
| 23***                            | Imitation involving the uttering of sounds to represent an object.            | 367                                          | 96.3% | Yes                     |
| 24***                            | Imitation involving the use of three-dimensional models to represent objects. | 365                                          | 95.8% | Yes                     |

\*Performance Standard for Objective 8 -- 80% of the Title I pupils will master at least 75% of the physical activities measured.

\*\*Performance Standard for Objective 11 -- 75% of the Title I pupils will conform to 65% of the school rules measured.

\*\*\*Performance Standard for Objectives 21, 22, 23, and 24 -- 90% of the Title I pupils will correctly respond to 100% of the relevant items measuring these objectives.

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All six objectives measured by the P.S.C.L. were attained by the pre-school pupils. A deeper insight into the extent of these achievement gains can be obtained by comparing pre- and post-test attainment levels. In the fall, the students did not approach mastery on any of the six objectives. In fact, on three objectives the percentage of students who attained mastery was less than 20. The highest percentage was 36.7 on Objective No. 8.

The pre- and post-test mastery levels look like this:

| <u>Objective</u> | <u>Pre %</u> | <u>Post %</u> |
|------------------|--------------|---------------|
| 8                | 36.7         | 98.1          |
| 11               | 12.9         | 97.1          |
| 21               | 17.6         | 93.4          |
| 22               | 20.3         | 91.3          |
| 23               | 34.9         | 96.3          |
| 24               | 18.6         | 95.8          |

Thus, it is apparent that the students not only mastered each objective in this group but came a long way in doing so. This illustrates the legitimacy of these objectives since few students possessed these skills upon entry into pre-school.

There was some concern among members of the pre-school staff as to whether this progress could be credited to the program or whether it was due to the pupil's maturational development over a nine-month period. This is a valid point from both a program and measurement perspective. To account for the degree to which maturation contributes to gains in mastery on these objectives an experimental design using a control group

is called for. Since this was not possible after the fact, a look at the mastery levels of kindergarteners entering school in the fall of 1974, but who had not participated in the pre-school program, might provide a gauge for determining the extent of maturation development. It is well documented, however, that kindergarten teachers spend a great deal of time working with pupils in developing these critical readiness skills. It is probably true then that Saginaw's pre-schoolers were given a head start as evidenced by gains shown in these areas.

Pre-School Manipulative Abilities Test Data. Other psychomotor objectives (objectives 9, 17, 19, and 25) were assessed by utilizing the Pre-School Manipulative Abilities Test. Table 3 below illustrates the results in terms of the attainment of performance standards.

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TABLE 3. NUMBER AND PERCENT OF 380 PRE-SCHOOL PUPILS WHO MET PERFORMANCE STANDARDS FOR EACH OBJECTIVE AS DETERMINED BY COMPARING PUPILS' SCORES ON THE PRE-SCHOOL MANIPULATIVE ABILITIES TEST ADMINISTERED IN MAY, 1974, TO PERFORMANCE STANDARDS, TOGETHER WITH A DETERMINATION OF THE ATTAINMENT OF EACH OBJECTIVE.

| Performance Objective by Number* | Behavioral Descriptor                                                                | Pupils Attaining Minimal Mastery |       | Attainment of Objective |
|----------------------------------|--------------------------------------------------------------------------------------|----------------------------------|-------|-------------------------|
|                                  |                                                                                      | #                                | %     |                         |
| 9                                | Muscular coordination involving eye/hand coordination.                               | 361                              | 95.0% | Yes                     |
| 17                               | Manipulation involving topological relationships concerning linear order.            | 303                              | 79.7% | Yes                     |
| 19                               | Manipulation involving copying of specific shapes.                                   | 298                              | 78.4% | Yes                     |
| 25                               | Knowledge and/or imitation of two-dimensional representation of objects in drawings. | 309                              | 81.3% | Yes                     |

\*Performance Standard for Objectives 9, 17, 19, and 25 -- 75% of the students will be able to perform 75% of the activities.

Again, all the objectives in this group were attained and, as with data discussed previously, pre- to post-test mastery levels increased greatly. A comparison of the pre- to post-test mastery levels exhibits the extent of improvement from October to May.

| <u>Objective</u> | <u>Pre %</u> | <u>Post %</u> |
|------------------|--------------|---------------|
| 9                | 18.8         | 95.0          |
| 17               | 7.3          | 79.7          |
| 19               | 5.0          | 78.4          |
| 25               | 12.4         | 81.3          |

For Objective 9, for instance, only 9 pupils achieved mastery on the pre-test while 361 mastered it on the post-test.

Saginaw Objective Referenced Test Data. A specially developed objective-referenced pre-school test was designed to measure the eight cognitive objectives. Table 4 below presents both the pre- and post-test data; however, only the post-test scores are used to determine mastery levels since the important points of comparison are terminal achievements as compared to performance standards.

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TABLE 4. SUMMARY OF NUMBER AND PERCENT OF PUPILS (422 PRE-TEST AND 376 POST-TEST) ATTAINING OBJECTIVES FOR THE PRE-SCHOOL PROGRAM AS DETERMINED BY AN ANALYSIS OF SCORES IN COMPARISON WITH CRITERIA FOR THE PRE-SCHOOL SAGINAW OBJECTIVE REFERENCED TEST (SORT) ADMINISTERED IN OCTOBER 1973, AND MAY 1974.

| Obj.<br>No. | Objective<br>Descriptor                                      | Standard                                              | Pre-Test |       | Post-Test |       | Attainment<br>of<br>Objective |
|-------------|--------------------------------------------------------------|-------------------------------------------------------|----------|-------|-----------|-------|-------------------------------|
|             |                                                              |                                                       | #        | %     | #         | %     |                               |
| 10          | Properties of objects--exploring.                            | 75% of the pupils will respond to 75% of the items.   | 220      | 52.1% | 351       | 93.3% | Yes                           |
| 12          | Knowledge of social roles.                                   | 75% of the pupils will respond to 75% of the items.   | 200      | 47.3% | 365       | 97.0% | Yes                           |
| 13          | Single criterion classification shifting to double criteria. | 50% of the pupils will be able to apply two criteria. | 74       | 17.5% | 238       | 63.2% | Yes                           |
| 14          | Relations among transitive relationships.                    | 75% will master the relevant item.                    | 64       | 15.1% | 304       | 80.8% | Yes                           |
| 15          | Conservation of number by one-to-one comparison.             | 75% will master the relevant item.                    | 314      | 74.4% | 359       | 95.4% | Yes                           |
| 16          | Meaning of prepositions in spatial relationships.            | 75% of the pupils will respond to 75% of the items.   | 282      | 66.8% | 346       | 92.0% | Yes                           |
| 18          | Parts of a whole.                                            | 75% of the pupils will respond to 75% of the items.   | 134      | 31.7% | 317       | 84.3% | Yes                           |
| 20          | Temporal ordering of three of four events.                   | 75% of the pupils will respond to 75% of the items.   | 12       | 2.8%  | 199       | 52.9% | No                            |

Pre-school pupils, as indicated in Table 4 above, mastered seven of the eight cognitive objectives. Objective 20 (temporal ordering of three of four events) presented the only roadblock but it was mastered by 52.9% on the post-test as compared to only 2.8% in the fall.

Here again, the data need little amplification. The rate of increase appears to be as significant as the fact that all but one objective were mastered. A prime example is objective 14 (relations among transitive relationships). In the fall, just 15.1% (64 pupils) mastered this objective. Seven months later, that figure increased to 80.8% (304 pupils). These increases serve to underscore the pre-school program's overall impact.

Parent Participation Data. Involving parents as active participants is an important goal of any sound compensatory education effort.

In this particular program, records were kept by teachers during the school year to measure the amount and type of parent participation. The standard for parent participation was specified in pre-school objective 26. Participation could consist of contributing material, visiting the classroom or accompanying a field trip, or communicating by phone, letter, or in person. Parent involvement could also include attending regularly scheduled meetings and conferences.

Parent participation results are presented in Table 5 below. Data were collected from September to April.

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TABLE 5. SUMMARY OF NUMBER AND PERCENT OF FAMILY CONTACTS\* MADE BY PRE-SCHOOL TEACHERS DURING THE 1973-1974 SCHOOL YEAR COMPARED TO A CRITERION\*\* ACCORDING TO AN ANALYSIS OF PARENT PARTICIPATION SHEETS. ALL TITLE I BUILDINGS, A.M. AND P.M. SESSIONS COMBINED.

| Number Families Reported on by Session |             | Number and Percent of Families Attaining Criterion by Session |             | Total Number and Percent Attaining the Objective | Attainment of Objective |
|----------------------------------------|-------------|---------------------------------------------------------------|-------------|--------------------------------------------------|-------------------------|
| Morning #                              | Afternoon # | Morning #                                                     | Afternoon % |                                                  |                         |
| 200                                    | 195         | 123                                                           | 61.5        | 131 67.1                                         | 254 64.3                |
| (395)                                  |             |                                                               |             |                                                  | Yes                     |

\*Family contacts include: (1) parent participation in the classroom (sending material, visiting class or attending field trips or communication by phone, letter or in person); (2) attend regularly scheduled meetings and conferences.

\*\*The criterion for Objective 26 is that, "An adult member of 30% of the families will (1) participate in the classroom or (2) attend parent meetings or any combination of these for a total of five times per year ..."

As the data in Table 5 indicate, objective 26 was achieved. In fact, parent participation was more than double the performance standard of 30%. A total of 254 of the 395 pre-school families (64.3%) actively participated in the program. It should be emphasized that parent involvement occurred in many different areas. For instance, during a three month period (January-April) eight different types of participation occurred. In that time, there was a total of 1,540 instances in which parents at the eleven pre-school centers received material about the program; 647 times parents visited a classroom or attended a field trip; there were 1,597 communications with parents via telephone, letter, or personnel contact. Parent teacher conferences were attended by 257 parents. Other contacts included scheduled meetings with teachers and participation in P.T.A. functions. This type of involvement was representative of what took place during the entire year.

In comparison with compensatory education within and outside this school district, this amount of parent participation appears unique.

#### Summary and Conclusions

Summary. Approximately 400 youngsters participated in the pre-school program which operated in Saginaw's eleven Title I elementary schools from September, 1973 to June, 1974. In terms of its instructional approach, the program closely followed Piagetian theory and its objectives and activities encompassed

all three domains--cognitive, psychomotor, and affective as did the evaluation effort. Relevant pre-service and inservice sessions were important aspects of the overall pre-school program and occurred frequently. Also, dissemination was emphasized. Over 650 people during the year were exposed to the program, primarily through slide-tape presentations.

The program encompassed 26 process and 26 product objectives covering the three domains plus parent participation. Process data indicated that the program was implemented as planned.

Pre-school pupils mastered 25 of the 26 product objectives. Even for the objective that was not attained, achievement levels increased substantially between September and May. In most cases, dramatic increases occurred from pre- to post-testing. The attainment of objectives was determined through the utilization of a variety of techniques and instruments (six in all). In the main, the development of assessment devices was a joint effort of program staff and personnel from the Department of Testing and Evaluation.

Conclusions. Simply stated, Saginaw's Pre-School Program was an unqualified success during 1973-74.

Unlike most pre-school efforts around the country, this program provided much more than just day care or nursery school services. With solid objectives in the affective, psychomotor, and cognitive domains, frequent inservice sessions and a small cohesive staff, Saginaw's pre-school effort had a significant educational impact.

Specifically, pre-school pupils mastered 25 of 26 performance objectives and, as a result, attained the basic skills they will need for entrance and success in kindergarten.

The success seems due to a number of factors. During the previous four years the program underwent continuous modification and refinement to reach this year's high level of sophistication. Furthermore, the pre-school staff and director have gained valuable experience in working together over the past several years. This good working relationship has no doubt contributed to the program's success. Other contributing factors include continual refinement of objectives, constant efforts at program and staff development, and a close working relationship between the pre-school and program evaluation staffs. This last point is illustrated by the way in which 1972-1973 evaluation recommendations were incorporated into this year's program. For example, last year's evaluation report recommended that pre-service sessions focus on the program's objectives and emphasize instructional activities and time allocation. That recommendation was followed this year and contributed to a well organized highly focused program.

#### Recommendations

In view of this year's success, the pre-school program should be continued and, if possible, expanded for the coming year. The basic structure and delivery system needs no modification. The effectiveness of the Pre-School Program does, however, have implications for other aspects of the school district's operation. Some of the implications are as follows.

- Decision makers should critically review the present kindergarten curriculum and, if necessary, make changes where needed to accommodate pupils who have had successful pre-school experiences. Current literature states that in most instances adjustments in curriculum are not being made for these pre-schoolers and therefore, after a number of years elapse, there is little difference in academic achievement between those with pre-school experience and those without.
- Design and implement a follow-up evaluation study of pre-schoolers in kindergarten through grade three. (It should be noted here that the district has this capability. The groundwork has been layed--pupil tracking techniques have been established and student numbers assigned--so that such study should begin in early 1975.)
- In a few instances pupil mastery levels upon entry into the program were somewhat high. A review of program product objectives should be carried out with a view toward making an upward revision in the difficulty of the objective. In addition, upgrading the difficulty level of the test items measuring these objectives might serve the same purpose.

## APPENDICES

00036

## PRE-SCHOOL CLASSROOM ACTIVITY OBSERVATION CHECKLIST

Observer's Name \_\_\_\_\_ Teacher's Name \_\_\_\_\_

School \_\_\_\_\_ Date \_\_\_\_\_ Length of Observation \_\_\_\_\_

| Process<br>Objective<br>Number    | Type of Activity*                                                           | Check if Activity Occurred<br>During Observation Period |                    |
|-----------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------|--------------------|
|                                   |                                                                             | (✓)                                                     | Example (optional) |
| 1-7a                              | Behavior Modification<br>Techniques                                         |                                                         |                    |
| 1-7a                              | Interest Centers                                                            |                                                         |                    |
| 8a                                | Gross Motor Coordination                                                    |                                                         |                    |
| 9a                                | Eye-Hand Coordination<br>(Gross and Fine Motor and<br>Manipulative)         |                                                         |                    |
| 10a                               | Properties of Objects;<br>i.e., shape, color, hard-<br>ness (five senses)   |                                                         |                    |
| 11a                               | Rules of Behavior (school<br>and traffic)                                   |                                                         |                    |
| 12a                               | Social Knowledge (i.e.,<br>work roles)                                      |                                                         |                    |
| 13a<br>SECOND<br>SEMESTER<br>ONLY | Grouping and Regrouping<br>(i.e., classification)                           |                                                         |                    |
| 14a                               | Transitive Relations (i.e.,<br>length, height, weight,<br>shades, hardness) |                                                         |                    |

\*Refer to ESEA Title I Pre-School Examples of Pre-School Activities According to Product and Process Objectives Sheet for a detailed explanation of the types of activities.

| Process Objective Number | Type of Activity*                                                                                                 | Check if Activity Occurred During Observation Period |                    |
|--------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------|
|                          |                                                                                                                   | (✓)                                                  | Example (optional) |
| 15a                      | Conservation of Numbers by One-to-One Comparison (i.e. matching, pouring, getting coats, rearranging collections) |                                                      |                    |
| 16a                      | Topological Space (i.e., in-out, under, etc.)                                                                     |                                                      |                    |
| 17a (PSMAT)              | Linear Order (i.e., straight lines, counting)                                                                     |                                                      |                    |
| 18a                      | Parts of a Whole                                                                                                  |                                                      |                    |
| 19a                      | Copying Specific Shapes (i.e., cutting, pantomime, drawing)                                                       |                                                      |                    |
| 20a                      | Temporal Ordering of Events                                                                                       |                                                      |                    |
| 21a                      | Use of Body to Represent an Object                                                                                |                                                      |                    |
| 22a                      | Use of Objects to Represent Other Objects                                                                         |                                                      |                    |
| 23a                      | Human Utterance Which Represent Objects                                                                           |                                                      |                    |
| 24a                      | Use of Three-Dimensional Model to Represent Object                                                                |                                                      |                    |
| 25a                      | Two-Dimensional Representation of Objects in Drawing                                                              |                                                      |                    |
| 26a                      | Record of Parental Participation Being Maintained                                                                 |                                                      |                    |

\*Refer to ESEA Title I Pre-School Examples of Pre-School Activities According to Product and Process Objectives Sheet for a detailed explanation of the types of activities.

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Appendix A  
(Key for Classroom Activity Observation Checklist)

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ESEA TITLE I - PRE-SCHOOL (1973-74)

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Examples of Pre-School Activities According  
to Product and Process Objectives

| Product &<br>Process<br>Objective<br>Number | Objective                                                                                                      | Activity Examples                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1-1a<br>thru<br>7-7a                        | Behavior<br>Modification                                                                                       | <ul style="list-style-type: none"> <li>-One-to-one relationship with an adult</li> <li>-Seeking adults as resources</li> <li>-Consistent classroom environment--inner control--freedom and responsibility</li> <li>-Sharing, selecting partners, initiating activities with others</li> <li>-Positive reinforcement</li> <li>-Continue with a task</li> <li>-Exhibit curiosity, questions, explore, experiment</li> <li>-Creativity--different ways to approach a task</li> </ul> |                                                                                                                                                                                                                                                                                                                              |
| 8-8a                                        | Gross Motor Coordination (large body movements, climbing, walking, rolling)                                    | <ul style="list-style-type: none"> <li>-Rhythms</li> <li>-Dancing</li> <li>-Jungle Gym</li> <li>-Free play activities</li> <li>-Balance Beam</li> <li>-Mats - tumbling</li> <li>-Play All Equipment</li> <li>-Jumpin Jiminy</li> <li>-Jump Roles - forming circles with activities</li> <li>-Jumping Jacks</li> <li>-Duck Duck Goose</li> <li>-Squirrel in Tree</li> </ul>                                                                                                        | <ul style="list-style-type: none"> <li>-Johnny Works With One Hammer</li> <li>-Bear Hunt</li> <li>-Acting out Mother Goose Rhyme</li> <li>-Rhythm Estamae</li> <li>-Dodge Ball</li> <li>-Balls &amp; Skate Board</li> <li>-Play House</li> <li>-Roller Skates</li> <li>-Snowman Activities</li> <li>-Up the Steps</li> </ul> |
| 9-9a                                        | Fine Motor Activities--Eye-Hand Coordination (use of classroom tools and materials--cutting, pasting, tearing) | <ul style="list-style-type: none"> <li>-Art work</li> <li>-Writing on the board</li> <li>-Finger painting</li> <li>-Folding</li> <li>-Stirring pudding</li> <li>-Peg boards</li> <li>-Pouring</li> <li>-Geoboards</li> <li>-Puzzles</li> <li>-Cuisenaire Rods</li> <li>-Sorting beads and buttons</li> <li>-TRY</li> <li>-Building Blocks</li> <li>-Lacing</li> </ul>                                                                                                             | <ul style="list-style-type: none"> <li>-Weaving</li> <li>-Chalk Boards</li> <li>-Flannel Boards</li> <li>-Clay</li> <li>-Sand box</li> <li>-Water play</li> <li>-Spreading peanut butter</li> <li>-Coats - buttons and zippers</li> <li>-Clean up time</li> <li>-Finger plays</li> <li>-Using musical instruments</li> </ul> |

## (ESEA TITLE I - PRE-SCHOOL continued)

| Product &<br>Process<br>Objective<br>Number | Objective                                                                                                                                                           | Activity Examples                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10-10a                                      | Properties of and Appropriate Behavior for Exploring Properties of an Object (shape, color, hardness-- using the five senses. Changing shades, measuring, weighing) | <ul style="list-style-type: none"> <li>-Making apple sauce, soups, cookies, etc.</li> <li>-Smelling and handling fruits and vegetables</li> <li>-Sawing wood</li> <li>-Tinkertoys</li> <li>-Sand paper activities</li> <li>-Feeling activities</li> <li>-Snacks - (mixtures)</li> <li>-Snow experiments</li> <li>-Bubble blowing</li> <li>-Straw painting</li> <li>-Furry and other textured toys</li> <li>-Fast and slow inclined plane</li> <li>-Paper mache</li> </ul> | <ul style="list-style-type: none"> <li>-Growing plants from seed</li> <li>-Cutting</li> <li>-Freezing</li> <li>-Heating</li> <li>-Rolling</li> <li>-Twisting</li> <li>-Frosting</li> <li>-Jello</li> <li>-Butter</li> <li>-Cakes</li> <li>-Paint mixing</li> <li>-Sinking and floating</li> <li>-Color macaroni</li> <li>-Play dough</li> </ul> |
| 11-11a                                      | Knowledge of Rules that Apply to Learners, i.e., health, and safety                                                                                                 | <ul style="list-style-type: none"> <li>-Stories</li> <li>-Visitors - nurse</li> <li>-Health Lessons</li> </ul>                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>-Safety Lessons</li> <li>-Line-up activities</li> <li>-Taking turns</li> </ul>                                                                                                                                                                                                                           |
| 12-12a                                      | Social Knowledge (world of work and roles of workers)                                                                                                               | <ul style="list-style-type: none"> <li>-Books</li> <li>-Field Trips</li> <li>-Films</li> <li>-Visitors</li> <li>-Role-playing</li> <li>-Helpers in the room</li> </ul>                                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>-Community workers</li> <li>-School workers</li> <li>-Visiting patrolmen</li> <li>-Postman</li> <li>-Kandy Keg Field Trip</li> </ul>                                                                                                                                                                     |
| 13-13a                                      | One Criterion Classification, Shifting to a second criterion among an array of objects (grouping shifting from one criterion to another)                            | <ul style="list-style-type: none"> <li>-Color - blocks</li> <li>-Shape</li> <li>-Size</li> <li>-Texture</li> <li>-Tone</li> <li>-Utility</li> <li>-Smell</li> <li>-Taste</li> <li>-Calendar</li> </ul>                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>-Sorting</li> <li>-Attendance - number of girls</li> <li>-Attendance - number of boys</li> <li>-Putting toys away</li> <li>-Doll House</li> <li>-Doll Dishes</li> </ul>                                                                                                                                  |

(continue)

## (ESEA TITLE I - PPE-SCHOOL continued)

| Product &<br>Process<br>Objective<br>Number | Objective                                                                                                                                   | Activity Examples                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                 |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14-14a                                      | Relations Among Transitive Relationships (seriation--comparing and arranging things according to a given dimension by transitive relations) | <ul style="list-style-type: none"> <li>-Length</li> <li>-Height</li> <li>-Weight</li> <li>-Shades of color</li> <li>-Hardness</li> <li>-Softness</li> <li>-Cuisenaire rods</li> <li>-Block tower building</li> <li>-Texture activities</li> </ul>     |                                                                                                                                                                                                                                                                 |
| 15-15a                                      | Conervation of Number by One-to-One Comparison (gross comparison between collections; comparisons by one-to-one correspondence)             | <ul style="list-style-type: none"> <li>-Collections -- rearrangement of</li> <li>-Lunch activities</li> <li>-Setting table</li> <li>-Matching</li> <li>-Calendar</li> <li>-Passing anything</li> <li>-Weather</li> </ul>                              | <ul style="list-style-type: none"> <li>-Getting coats</li> <li>-Right boot</li> <li>-Pouring activities</li> </ul>                                                                                                                                              |
| 16-16a                                      | Topological Space (meaning of in-out, over-under, in front of, in back of, in relation to self, toys, pictures)                             | <ul style="list-style-type: none"> <li>-Ring Around the Rosies</li> <li>-Squirrel in a Tree</li> <li>-Hokey Pokey</li> <li>-When You're Up Your Up</li> <li>-In and Out the Windows</li> <li>-Bear Hunt</li> </ul>                                    | <ul style="list-style-type: none"> <li>-Directions from adult</li> <li>-Three Billy Goats Gruff</li> <li>-Jack in the Box</li> <li>-London Bridge</li> <li>-Popcorn</li> <li>-Use of box</li> </ul>                                                             |
| 17-17a                                      | Topological Relationships Concerning Linear Order (structure of space)                                                                      | <ul style="list-style-type: none"> <li>-Games - straight line</li> <li>-Role-playing</li> <li>-Manipulation of Object (rods, blocks, toys)</li> <li>-Poetry</li> <li>-Prose</li> </ul>                                                                | <ul style="list-style-type: none"> <li>-Counting days till</li> <li>-Finger plays</li> <li>-Bear Hunt</li> <li>-AAA</li> <li>-Ten Little Indians</li> </ul>                                                                                                     |
| 18-18a                                      | Parts of a Whole                                                                                                                            | <ul style="list-style-type: none"> <li>-Clay</li> <li>-Paper cutting</li> <li>-Puzzles - inlaid</li> <li>-Coloring</li> <li>-Sawing</li> <li>-Cooking</li> <li>-Body Parts</li> <li>-Growing plants</li> <li>-Filling partial measurements</li> </ul> | <ul style="list-style-type: none"> <li>-Gingerbread Man</li> <li>-Bread and rolls</li> <li>-Strawberry jam</li> <li>-Ripping cloth strips</li> <li>-Torn paper artwork</li> <li>-Loops - artwork</li> <li>-Placement of toys in specific unit or box</li> </ul> |

## (ESEA TITLE I - PRE-SCHOOL continued)

| Product &<br>Process<br>Objective<br>Number | Objective                                                                             | Activity Samples                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                     |
|---------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 19-19a                                      | Copying of Specific Shapes                                                            | <ul style="list-style-type: none"> <li>-Line drawings</li> <li>-Sand drawing</li> <li>-Paper cutting</li> <li>-Cookie cutting with clay</li> <li>-"Simon Says"</li> <li>-Tracing</li> <li>-Rubbing</li> <li>-Pegboard</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>-Geoboards</li> <li>-TRY</li> <li>-Writing chalkboard</li> <li>-Directed copying activity</li> <li>-Pantomime</li> <li>-Exercises</li> </ul> |
| 20-20a                                      | Temporal Ordering of Three or Four Events (structuring time)                          | <ul style="list-style-type: none"> <li>-Show and Tell</li> <li>-Story - book</li> <li>-Role-playing</li> <li>-Science experiments</li> <li>-Calendar</li> <li>-Preparation art, lunch, cleanup home bound</li> </ul>                                                                                                  | <ul style="list-style-type: none"> <li>-Growth stages</li> <li>-Finger play</li> <li>-Farmer in Dell</li> <li>-Audio-visual materials</li> </ul>                                    |
| 21-21a                                      | Use of Body to Represent Objects (i.e., pretending to hold a telephone receiver)      | <ul style="list-style-type: none"> <li>-Musical games</li> <li>-Role-playing</li> <li>-Shadow Plays</li> <li>-Dramatization</li> <li>-Elephant Walk</li> </ul>                                                                                                                                                        | <ul style="list-style-type: none"> <li>-Seals</li> <li>-Bunny Hop</li> <li>-Exercise Records</li> <li>-Bodies for race cars</li> </ul>                                              |
| 22-22a                                      | Use of Objects to Represent Other Objects (props) (representation at symbol level)    | <ul style="list-style-type: none"> <li>-Story telling by using props</li> <li>-Role-playing</li> <li>-Puppets</li> <li>-Flannel Board</li> </ul>                                                                                                                                                                      |                                                                                                                                                                                     |
| 23-23a                                      | Uttering of Sounds to Represent Objects                                               | <ul style="list-style-type: none"> <li>-Role-playing</li> <li>-Musical game</li> <li>-Puppets</li> </ul>                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>-Flannel board</li> <li>-Dramatization</li> </ul>                                                                                            |
| 24-24a                                      | Use of Three-Dimensional Models to Represent Objects (representation at symbol level) | <ul style="list-style-type: none"> <li>-Pretend telephone</li> <li>-Playing house</li> <li>-Using blocks</li> <li>-Buggy for cars</li> </ul>                                                                                                                                                                          | <ul style="list-style-type: none"> <li>-Educubes for drums</li> <li>-Domino blocks for walkie talkie</li> </ul>                                                                     |
| 25-25a                                      | Two-Dimensional Representation of Objects in Drawings (eye-hand manipulation)         | <ul style="list-style-type: none"> <li>-Read aloud of picture story book</li> <li>-Manipulation of packets of cards which contain pictures of common objects</li> <li>-Drawing on chalkboard, easel, coloring paper</li> <li>-Play with water and brush, pitcher, or sprinkling can</li> <li>-Play teacher</li> </ul> |                                                                                                                                                                                     |

## THE AFFECTIVE RATING SCALE

Teacher \_\_\_\_\_ School \_\_\_\_\_

Date \_\_\_\_\_ Session: \_\_\_\_\_ a.m. \_\_\_\_\_ p.m.

DIRECTIONS: Please circle one of the ratings (VF for "very frequently," F for "frequently," S for "sometimes," I for "infrequently," and VI for "very infrequently") for

\_\_\_\_\_ student's full name  
on each of the following behavioral dimensions.

- |                                                         |    |   |   |   |    |
|---------------------------------------------------------|----|---|---|---|----|
| 1. Selects a partner . . . . .                          | VF | F | S | I | VI |
| 2. Asks questions. . . . .                              | VF | F | S | I | VI |
| 3. Initiates activities with others. . . . .            | VF | F | S | I | VI |
| 4. Explores objects in his environment . . . . .        | VF | F | S | I | VI |
| 5. Trusts teacher. . . . .                              | VF | F | S | I | VI |
| 6. Initiates interaction with teacher. . . . .          | VF | F | S | I | VI |
| 7. Completes assignments . . . . .                      | VF | F | S | I | VI |
| 8. Seeks information from teacher. . . . .              | VF | F | S | I | VI |
| 9. Seeks information from peers. . . . .                | VF | F | S | I | VI |
| 10. Seeks adult approval. . . . .                       | VF | F | S | I | VI |
| 11. Interacts with other children . . . . .             | VF | F | S | I | VI |
| 12. Stays with some activity for 10 minutes . . . . .   | VF | F | S | I | VI |
| 13. Exhibits inner control during observation . . . . . | VF | F | S | I | VI |
| 14. Exhibits inner control without direction. . . . .   | VF | F | S | I | VI |
| 15. Brings his treasures to school. . . . .             | VF | F | S | I | VI |
| 16. Shows flexibility in use of materials . . . . .     | VF | F | S | I | VI |
| 17. Attempts new activities . . . . .                   | VF | F | S | I | VI |
| 18. Tries new ways to tackle problems . . . . .         | VF | F | S | I | VI |

## Appendix C

## PRE-SCHOOL CHECK LIST (PSCL)

Teacher \_\_\_\_\_ Child's Name \_\_\_\_\_

School \_\_\_\_\_ Date \_\_\_\_\_

Session: \_\_\_\_\_ a.m. \_\_\_\_\_ p.m.

INSTRUCTIONS: Check each objective the child can successfully perform.

## A. Physical Activities:

- \_\_\_\_\_ 1. The youngster will demonstrate his tiptoeing ability by tiptoeing forward for six feet with steps shorter than his normal walk.
- \_\_\_\_\_ 2. The student will demonstrate his ability to run by successfully running twenty feet without falling or tripping.
- \_\_\_\_\_ 3. Given a mark on the floor the child will be able to jump over it by simultaneously lifting both feet from the floor and propelling his body forward.
- \_\_\_\_\_ 4. Given a ten-foot length of a 2" by 4" piece of lumber the child will be able to walk a distance of at least five feet on the 4" side of the lumber.
- \_\_\_\_\_ 5. Given the directive (opportunity) to hop on one foot the child will be able to take five consecutive hops on either foot.
- \_\_\_\_\_ 6. Given a kindergarten "playground" ball placed on the floor or ground the child will be able to kick the ball, with either foot, for a distance of ten feet.
- \_\_\_\_\_ 7. Given a directive (opportunity) to skip, as a participant in any group activity which involves skipping, the learner will be able to skip for a distance of ten or more feet.

## B. Traffic and School Rules:

- \_\_\_\_\_ 1. Given his turn to be responsible for a housekeeping chore in the classroom the child will carry out, independently, the full responsibility for the completion of the chore.
- \_\_\_\_\_ 2. Given the classroom rule that children must have clean hands when using books, pencils and paper, the child will assume responsibility for having clean hands.

## Appendix C

- \_\_\_\_\_ 3. Given the opportunity to move about within the school alone, or with peers, the child will observe rules of behavior.

## C. Representation at Symbol Level:

- \_\_\_\_\_ 1. Given opportunities for free play, without the use of props, the child will utilize his body to imitate other objects. (For example)
- a. use of hands for telephone
  - b. arms and feet for train
  - c. body as a spinning top
  - d. arms for cradle
- \_\_\_\_\_ 2. Given the opportunity to participate in a dramatization the child will, without any props, act out the role of an animal, a person, or an object in the plot. (For example)
- a. troll under bridge
  - b. spider with Miss Moffet
  - c. arms as clock
  - d. arms as see-saw
- \_\_\_\_\_ 3. Given a toy truck or tractor, the child will be able to vocally imitate the appropriate sound of truck or tractor.
- \_\_\_\_\_ 4. Given a toy cat and a toy dog, the child will be able to vocally imitate the sound a cat or a dog might make when confronted by the other animal.
- \_\_\_\_\_ 5. Given a pin wheel and the opportunity to run about the room with it, the child will be able to vocally imitate the sound which wind might create as it passes around a house or through a tree.
- \_\_\_\_\_ 6. Given opportunities to role-play the child will, on three occasions, use classroom objects to represent other objects in any environment. (For example)
- a. building block for a boat
  - b. pencil for a saw
  - c. rope for firehose
- \_\_\_\_\_ 7. Given three dimensional models for role-play, the child will, on three occasions, create and participate in a situation appropriate for the use of the models. (For example)
- a. doll dishes for tea party
  - b. clothes for dress up
  - c. cartons and play money for shopping
  - d. toys for road construction

## PRESCHOOL MANIPULATIVE ABILITIES TEST (PSMAT)

Teacher \_\_\_\_\_ Child's Name \_\_\_\_\_

School \_\_\_\_\_ Date \_\_\_\_\_

Session: \_\_\_\_\_ A.M. \_\_\_\_\_ P.M.

SEAT CHILD ACROSS FROM TEACHER

Check one (✓)

- 1A. From kit #1, ask pupil to fold sheet of paper in half.

"FOLD THE PAPER IN HALF."

+ \_\_\_\_\_

(teacher judgment  $\pm$  1/3 from median)

0 \_\_\_\_\_

- B. Using same folded sheet, ask pupil to cut the sheet in half.

"NOW CUT THE PAPER IN HALF."

+ \_\_\_\_\_

(within  $\frac{1}{2}$ " of fold)

0 \_\_\_\_\_

- 2A. Ask pupil to color inside the outline of this circle.

+ \_\_\_\_\_

"COLOR INSIDE THIS CIRCLE."

0 \_\_\_\_\_

(outside markings not to exceed  $\frac{1}{2}$ " at any point)

TOTAL + SCORE \_\_\_\_\_

00046

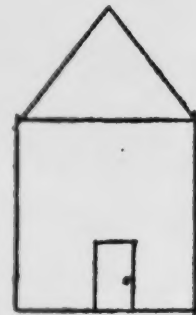
2B. Ask pupil to draw a line between the two lines.

"DRAW A LINE BETWEEN THE TWO LINES FROM THE MOUSE TO THE HOUSE."

(line must be within parallel lines)

+ \_\_\_\_\_

0 \_\_\_\_\_

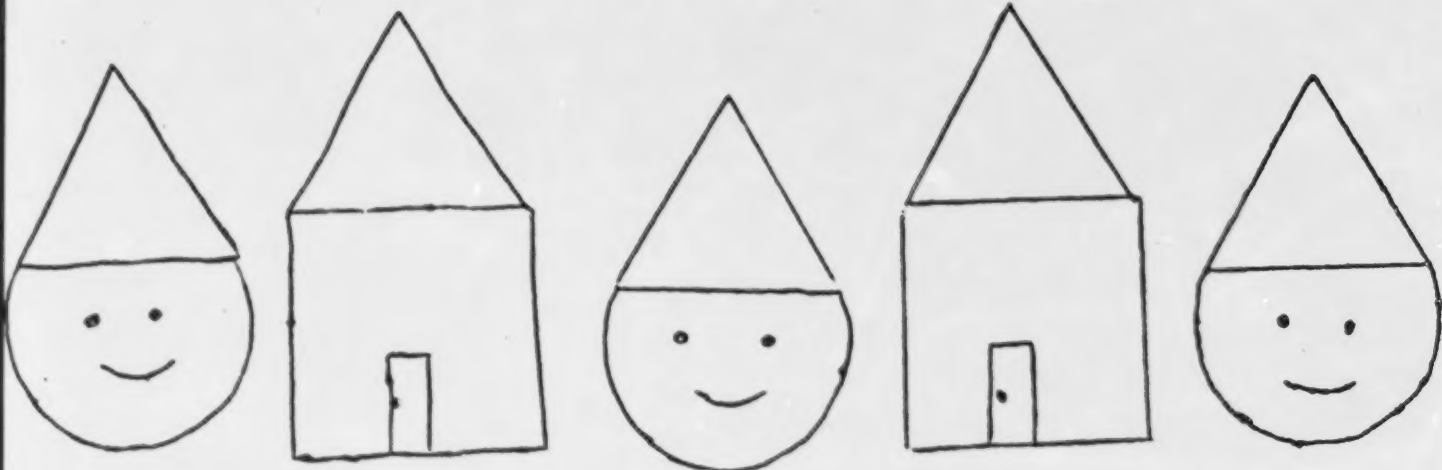


DIRECTIONS: Teacher uses cutout forms from kit #2 and places the following pattern on the table, asking pupil to make the same pattern.

3. "YOU MAKE YOUR ROW LOOK JUST LIKE MINE."

+ \_\_\_\_\_

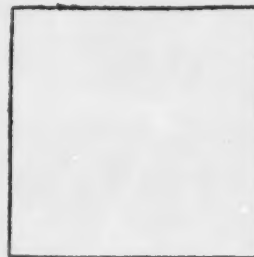
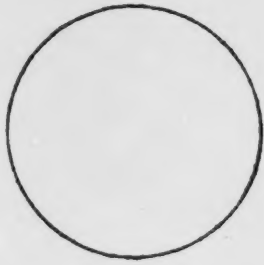
0 \_\_\_\_\_



TOTAL + SCORE \_\_\_\_\_

4. Have pupils draw each figure in the space provided.

"DRAW PICTURES LIKE THE ONES IN THE BOXES" (form must be identifiable)



(possible four)

TOTAL + SCORE \_\_\_\_\_

5. Have pupils draw each letter in the space provided.

"DRAW LETTERS LIKE THE ONES IN THE BOXES" (form must be identifiable)

A

B

C

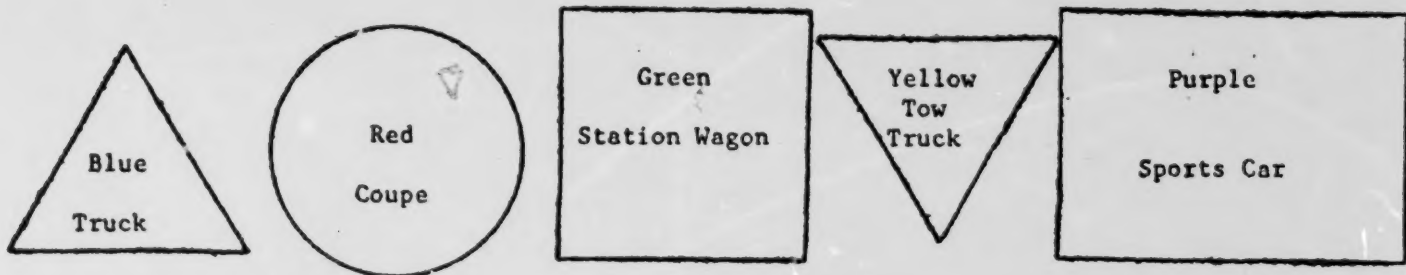
X

(possible four)

TOTAL + SCORE \_\_\_\_\_

Teacher: child must be seated across from you.

6. Teacher places (5) toy cars (from kit #6) on parking strip (#1) in the following pattern:



- A. Then the teacher asks pupil to park his 5 cars on his similar parking strip (#2) to make a row just like hers.

+ \_\_\_\_\_

"PARK YOUR CARS JUST LIKE MINE."

0 \_\_\_\_\_

- B. Teacher places her 5 toy cars as in 6A above but on a shorter parking strip (#3) and again gives the child the longer strip (#2). Then the teacher asks the child to make a row of his 5 cars to look just like her row and fill up all his parking lot.

+ \_\_\_\_\_

"PARK YOUR CARS JUST LIKE MINE. FILL UP THE PARKING LOT."

0 \_\_\_\_\_

\*\* (If child passes A and/or B above, proceed to C. If he fails both stop test at this point.)

- C. Teacher places her cars on a longer strip (#1) in the same pattern as the child's. She places parking strip #4 between their parking strips (#1 & #2). Then she places her hands simultaneously on her 5th car and the child's first car, moving his car to the 5th position on strip #4.

+ \_\_\_\_\_

0 \_\_\_\_\_

Then she places her hands simultaneously on her 4th car and his 2nd car, moving his car to the 4th position on strip #4.

Then she says, "NOW YOU PARK THE REST OF YOUR CARS."

SAGINAW  
OBJECTIVE  
REFERENCED  
TESTS

PRE-SCHOOL

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## Appendix E

## DIRECTIONS FOR ADMINISTERING S.O.R.T. PRE-SCHOOL

- Read these thoroughly before testing -

All directions that are for teacher use only will be in parentheses and are not to be read to the pupil. This test is to be administered on a one-to-one basis.

Even though the test is immediately scored on a right or wrong basis by the person administering it, all pupil responses are to be accepted, i.e., the content of a pupil's response should not be objected to.

The person administering the test should, however, make sure that the pupil clearly understands the task that he is to perform, i.e., he should be told how to respond to the questions and this may involve correcting him.

A separate scoring sheet will be provided to those administering the test and it should be marked as the test is administered. Use these symbols for scoring:

+ for correct responses

0 for incorrect responses

- for no response

Print the pupil's name, last name first, then first name, etc. on the line provided on the scoring sheet. Make every attempt to administer all items to pupils being tested.

Take as much time as you think is necessary to administer the test to each pupil. This may involve administering the test in a number of sittings.

Since you are to score the test as you move along, your directions for each test item will also have a section devoted to correct or acceptable responses to that you can appropriately mark your scoring sheet.

Familiarize yourself with all testing materials before administering the test. Make sure that you have a complete set of manipulative materials and flash cards before beginning the test. In addition, read all the specific directions for administering the test items before testing begins. This practice should help you more quickly score each response since you will be somewhat knowledgeable of the acceptable response charts provided in the test instructions.

## S.O.R.T. PRE-SCHOOL TEST ITEMS

(Remember, all statements in parentheses ( ) are intended for your use and are not to be read to the child.)

1. SAY, "Let's play a game where you have to tell me about things you cannot see."

(Hand the pupil feely sock box Number 1. It contains a rubber ball.)

SAY, "Put your hand in the sock. Keep your hand in the sock. Take the thing that is in the sock and hold on to it. Tell me about it."

(Pause) (Listen for one of these acceptable responses and mark your scoring sheet accordingly.)

Acceptable Responses

- name of the object
- shape of the object
- use of the object
- feel of the object
- name of the material that the object is made of

SAY, "Let's take a look at it. Now, let's do another one."

(Put away box Number 1 making sure that the ball is put back, take out box Number 2 and turn to the next page.)

2. (Hand the pupil feely sock box Number 2. It contains a zipper.)

SAY, "Put your hand in the sock. Keep your hand in the sock. Take the thing that is in the sock and hold on to it. Tell me about it."

(Pause) (Listen for one of these acceptable responses and mark your scoring sheet accordingly.)

Acceptable Responses

- name of the object
- shape of the object
- use of the object
- feel of the object
- name of the material that the object is made of

SAY, "Let's take a look at it. Now, let's do another one."

(Put away box Number 2 making sure that the zipper is put back, take out box Number 3.)

- 
3. (Hand the pupil feely sock box Number 3. It contains a deflated balloon.)

SAY, "Put your hand in the sock. Keep your hand in the sock. Take the thing that is in the sock and hold on to it. Tell me about it."

(Pause) (Listen for one of these acceptable responses and mark your scoring sheet accordingly.)

Acceptable Responses

- name of the object
- shape of the object
- use of the object
- feel of the object
- name of the material that the object is made of

SAY, "Let's take a look at it. Now, let's do another one."

(Put away box Number 3 making sure that the balloon is put back, take out box Number 4 and turn to the next page.)

4. (Hand the pupil feely sock box Number 4. It contains a plastic key.)

SAY, "Put your hand in the sock. Keep your hand in the sock. Take the thing that is in the sock and hold on to it. Tell me about it."

(Pause) (Listen for one of these acceptable responses and mark your scoring sheet accordingly.)

Acceptable Responses

- name of the object
- shape of the object
- use of the object
- feel of the object
- name of the material that the object is made of

SAY, "Let's take a look at it."

(Put away box Number 4 making sure the key is put back.)

- 
5. SAY, "Now let's take a look at some pictures and talk about them."

(Show the child the picture marked with the Number 5 on the back. As you are holding it follow these directions.)

SAY, "Tell me who this worker is. What does he do?"

(Pause for response, listening for one of the acceptable responses listed below.)

Acceptable Responses

- name of the role or title of the worker

OR

- a description of what he does or how the worker helps us.

(Mark on your scoring sheet accordingly. Then turn to the next page.)

- 6-10. (Put away picture Number 5 and continue following the same directions for questions (pictures) 6, 7, 8, 9, and 10. Remember to mark on your scoring sheet after each question.)
- 

11. SAY, "In just a minute we will play a game with some candies which should be lots of fun."

(Open the envelope marked item Numbers 11-12 and randomly place candies that it contains in front of the pupil.)

SAY, "Some candies are yellow, some are green, some are round, and some are long. Put together all candies that are alike."

(Pause for the child to group the candies. Make sure that one of the groups is correct according to the acceptable responses listed below.)

Acceptable Responses

- grouping according to color
- grouping according to form
- grouping according to size
- grouping according to multiple criteria  
(give credit for correct responses for both item 11 and 12 if a multiple criteria is used)

(Mark on your scoring sheet accordingly. If the child has grouped the candies in some way, do not mix them up again but proceed to 12.)

-----

12. SAY, "This time I want you to make two bunches in another way. Put together the same candies in a different way."

(If the child repeats his first grouping, stop the child.)

SAY, "You've already done that. Can you find another way of putting them together?"

(Pause for the child to group the candies. Make sure the grouping is different than the first and is correct according to the acceptable response listed above for Item 11. Mark on your answer sheet accordingly and put the candies back into the envelope. Turn to the next page.)

---

13. SAY, "Now let's take a look at some pictures and put them in order."

(Open the envelope marked item Number 13 and randomly place the four pictures in front of the pupil.)

SAY, "Here are four cards with a girl on each. Some of the girls are tall, some are short. Put the girls in a row from tallest to shortest."

(Pause for the child to arrange the girls from tallest to shortest. Make sure that the arrangement is correct according to the acceptable responses listed below.)

Acceptable Responses

-- all four pictures from tallest to shortest

OR

-- all four pictures from shortest to tallest

(Mark on your scoring sheet accordingly and put the cards away. Turn to the next page.)

---

14. SAY, "Now let's look at some more pictures."

(Open the envelope marked item Number 14 and place the five girls in a row and the five umbrellas in a random grouping to one side of the girls. Do not stack the umbrella cards as that would prevent the child from seeing how many there are.)

SAY, "Here is a row of little girls." (Point to the row of girls.) "And, a pile of umbrellas." (Point to the random grouping of the five umbrellas.) "Are there enough umbrellas for each little girl?" (Pause for an answer, but don't score.) "Let's find out." (Place an umbrella above each little girl.) "Now does each little girl have an umbrella?" (Pause for an answer but don't score.) "Why?" (Pause but don't score.) "Since there are this many little girls, we must also have the same number of umbrellas because there is an umbrella above each little girl." (Once again place the umbrellas in a random grouping to one side of the little girls in a row.) "Are there enough umbrellas for each little girl?"

(Pause for the child to answer the question. Make sure that the answer is listed below as an acceptable response.)

Acceptable Responses

- yes
- there are an equal number of girls and umbrellas
- there are five umbrellas for five little girls

(Mark on your scoring sheet accordingly and put the cards away. Turn to the next page.)

---

15. SAY, "Now let's play a game."

(Place the milk carton that represents a garage and the car on a table before the child. Make sure that the car is about a foot away from the garage.)

SAY, "Here is a garage." (Point to the milk carton.)  
"And, a car." (Point to the car.) "Put the car in the garage." (Pause)

Acceptable Response

-- car pushed into the garage through the door

(Mark on your score sheet accordingly. Place the garage about a foot from the car.)

-----

16. SAY, "Now put the car in front of the garage."

(Pause)

Acceptable Response

-- car on the side of the garage with the doors

(Mark on your score sheet accordingly.)

-----

17. (Again, place the garage about a foot from the car.)

SAY, "Put the car on top of the garage."

(Pause)

Acceptable Response

-- car on top of the garage

(Mark on your score sheet accordingly. Then place the car about a foot from the garage. Now turn the page.)

18. SAY, "Put the car in back of the garage."

(Pause)

Acceptable Response

-- car on the opposite side of the garage  
from the open doors

(Mark on your score sheet accordingly. Then put  
the garage and car away, out of sight of the  
child.)

---

SAMPLE ITEM

SAY, "Let's play a guessing game."

(Find the envelope labeled Items 19-22 and the card  
inside labeled "Sample." Hold up the sample card  
making sure that you hold the flap closed over half  
of the picture and that word "top" on the back of  
the card is pointed upward.)

SAY, "There are pictures of things to hide under a little  
card like this. See the clock like this, (open the  
flap so that the clock can be seen completely) by  
opening and closing the flap on the card."

(Don't score this sample item.)

(Turn to the next page for Item Number 19.)

19. SAY, "Now I am going to show you another card."

(Hold up Card 19 so that the pupil can only see half of the picture. Make sure the top of the card is up.)

SAY, "The rest of the picture is hiding. Tell me what you think this is."

(Pause for the child to answer the question. Acceptable responses are listed below.)

Acceptable Responses

- a fan
- an air blower
- machine that makes wind

(Mark your scoring sheet accordingly and put the card away.)

-----

20. (Hold up Card Number 20 so that the pupil can see only half of the picture. Make sure that the top of the card is up.)

SAY, "Now tell me what you think this is."

(Pause for the child to answer the question. Make sure that the answer is listed below as an acceptable response.)

Acceptable Responses

- a ring
- a diamond
- a piece of jewelry
- a wedding ring
- something you wear on your finger
- a bracelet

(Mark on your answer sheet accordingly and put the card away. Turn to the next page.)

21. (Hold up Card Number 21 so that the pupils can see only half of the picture. Make sure that the top of the card is up.)

SAY, "Now what is this."

(Pause for the child to answer. Make sure that the answer is listed below as an acceptable response.)

Acceptable Responses

- a book
- a magazine
- a Bible

(Mark on your answer sheet accordingly and put the card away.)

-----

22. (Hold the Card Number 21 so that the pupil can see only half of the picture. Make sure that the top of the card is up.)

SAY, "Now what is this."

(Pause. Make sure that the answer is listed below as an acceptable response.)

Acceptable Responses

- a hen
- a chicken
- an animal
- a bird
- a turkey
- a duck
- a goose

(Mark your answer sheet accordingly and put the card away. Then turn to the next page for the directions to the sample item that preceeds items 23-26.)

---

SAMPLE ITEM

SAY, "Let's play a game with some pictures and stories."

(Find the three cards labeled on the back, "Sample" in the envelope with items Numbered 23-26 written on the front. Hold the cards until you have finished reading the story.)

SAY, "I will read you a story. Listen very carefully to the story so that afterwards you can tell me what happened first, next, and last."

## THE CAT AND THE DOG

A striped cat went for a walk.

A curly dog went for a walk.

They met on the sidewalk.

(Hand the pupil the cards in a random order.)

SAY, "Now put the pictures in the same order as what happened in the story about the cat and the dog."  
(Pause) "Why did you put the pictures in that order?" (Pause, correct the pupil if he isn't correct and show him the proper order the pictures should be in while you repeat the three sentences of the story.)

(Don't score as this is a sample item.)

(Put the sample cards away. Turn the page for the directions for Item 23.)

23. (Find the three cards labeled Number 23 in the envelope with Item Number 23-26 written on the front. Hold the three cards until you have finished reading the story.)

SAY, "I will read you another story. Listen very carefully to the story so that afterwards you can tell me what happened first, next, and last."

(Read the following story to the pupil.)

#### THE BIRTHDAY

James had a birthday cake.

Daddy gave him a big box.

James looked inside.

(Hand the pupil the cards in a random order.)

SAY, "Now put the pictures in the same order as what happened in the story about the birthday.

(Pause for the child to answer the question. Make sure that the answer is listed below as an acceptable response.)

#### Acceptable Response

- all three pictures in correct time order sequence even if backwards providing the child can explain what came first, etc.

(Mark your scoring sheet accordingly and put the cards away. Then turn the page for the directions to Item 24.)

24. (Find the three cards labeled Number 24 in the envelope with Number 23-26 written on the front. Hold the three cards until you have finished reading the story.)

SAY, "I will read you another story. Listen very carefully to the story so that afterwards you can tell me what happened first, next, and last."

(Read the following story to the pupil.)

BENJY

Benjy washed his face.

Mother combed his hair.

Benjy waved goodbye and ran to the door.

(Hand the pupil the cards in a random order.)

SAY, "Put the pictures in the same order as what happened in the story about Benjy."

(Pause for the child to answer the question. Make sure that the answer is listed below as an accepted response.)

Acceptable Response

- all three pictures in correct time order sequence even if backwards providing the child can explain what came first, etc.

(Mark on your scoring sheet accordingly and put the cards away. Then turn the page for the directions to Item 25.)

25. (Find the three cards labeled Number 25 in the envelope Number 23-26 written on the front. Hold the three cards until you have finished reading the story.)

SAY, "Again, I will read you a story. Now listen very carefully to the story so that afterwards you can tell me what happened first, next, and last."

(Read the following story to the pupil.)

#### MILK AT SCHOOL

Gloria was the helper for milk.

A boy and girl opened their milk cartons.

The boy spilled his milk.

(Hand the pupil the cards in a random order.)

SAY, "Put the pictures in the same time order as what happened in the story about the milk at school."

(Pause for the child to answer the question. Make sure that the answer is listed below as an accepted response.)

#### Acceptable Response

-- all three pictures in correct time order sequence even if backwards providing the child can explain what came first, next, and last.

(Mark on your scoring sheet accordingly and put the cards away. Then turn the page for the directions to Item 26.)

26. (Find the three cards labeled Number 26 in the envelope with Item Number 23-26 written on the front. Give the three cards to the pupils in a random order.)

SAY, "Here are three pictures in a mixed-up order. What do you see in each picture?" (Pause and listen.) "Now put the pictures in a way that they will tell a story." (Pause) "Tell me the story you made up for the pictures."

(Pause for the child to answer the question. Make sure that the answer is listed below as an acceptable response.)

Acceptable Responses

- the sequence of pictures must be logical to the examiner
- the sequence of pictures must be justified by the child

(Mark on your scoring sheet accordingly and put the cards away. Check the scoring sheet to make sure you have scored the pupil on all 26 items. Since this is the end of the test, make sure your materials are in the proper order so the test can be given to another pupil in the future.)

NOTE: The test itself could not be included in this report because it is composed of many manipulative materials and home-made 3-dimensional objects (candy, feely-sock boxes, etc.). Information about the test can be obtained by contacting either Reva Ruby, Houghton Community Resource Center, 1600 Johnson Street, Saginaw, Michigan or Department of Evaluation Services, 550 Millard Street, Saginaw, Michigan 48607.

## SCORING SHEET FOR S.O.R.T. PRE-SCHOOL

| Building | Teacher's<br>Last Name | Pupil's Name |       |      | Date |  |  |
|----------|------------------------|--------------|-------|------|------|--|--|
|          |                        | Last         | First | M.I. |      |  |  |

(Circle appropriate response) Section: A.M. P.M.

**DIRECTIONS:** Please print the information required in the long box above before administering the test. Score each question as you administer the test by using: + for correct responses, 0 for incorrect responses, and - for no response. Use only one of the three symbols to score each item.

- |           |           |
|-----------|-----------|
| 1. _____  | 14. _____ |
| 2. _____  |           |
| 3. _____  | 15. _____ |
| 4. _____  | 16. _____ |
|           | 17. _____ |
| 5. _____  | 18. _____ |
| 6. _____  |           |
| 7. _____  | 19. _____ |
| 8. _____  | 20. _____ |
| 9. _____  | 21. _____ |
| 10. _____ | 22. _____ |
|           |           |
| 11. _____ | 23. _____ |
| 12. _____ | 24. _____ |
|           | 25. _____ |
| 13. _____ | 26. _____ |